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Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Application Number 10/734,783 Filing Date 12/12/2003 First Named Inventor Madhukar et al. **Art Unit** 2141 2155 Unknown **Examiner Name** Minori Attorney Docket Number AOL0116

Complete if Known

		I		DOCUMENTS	
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ^{2 (# known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevan Figures Appear
سم	Α	^{US-} 5,528,513	6/18/96	Vaitzbilt et al.	
, cun	В	^{US-} 5,644,715	7/1/97	Baugher	
mu	С	^{US-} 5,761,417	7/28/98	Henley et al.	
mu	D	^{US-} 5,787,482	7/28/98	Chen et al.	
nu	E	^{US-} 5,913,039	6/15/99	Nakamura	
لسير	F	^{US-} 5,944,778	8/31/99	Takeuchi et al.	
m	G	^{US-} 5,956,321	9/21/99	Yao et al.	
m	Н	^{US-} 5,996,015	11/30/99	Day et al.	
سبه	1	^{US-} 6,041,354	3/21/00	Biliris et al.	
mu	J	^{US-} 6,088,722	7/11/00	Herz	
mu	К	^{US-} 6,112,023	8/29/00	Dave et al.	
m	L	^{US-} 6, 173,325 .	1/9/01	Kukreja	
m	М	^{US-} 6,195,701	2/27/01	Kaiserworth et al.	
m	N	^{US-} 6,247,061	6/12/01	Douceir	· · · · · · · · · · · · · · · · · · ·
رسم	0	^{US-} 6,438,630	8/20/02	DeMoney	
nu	Р	^{US-} 6,446,125	9/03/02	Huang et al	
nu	Q	^{US-} 6, 446,126	9/03/02	Huang et al.	
nul	R	^{US-} 6,453,316	9/17/02	Karibe et al.	
nu	S	^{US-} 6,222,530	4/24/01	Sequiera	

		FOREIG	N PATENT DOCU	MENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
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Complete if Known Substitute for form 1449/PTO **Application Number** 10/734,783 Filing Date 12/12/2003 INFORMATION DISCLOSURE First Named Inventor Madhukar et al. STATEMENT BY APPLICANT Art Unit 2141 2155 (Use as many sheets as necessary) **Examiner Name** Unknown Won Attorney Docket Number AOL0116

U. S. PATENT DOCUMENTS Cite Examiner **Document Number** Publication Date Name of Patentee or Pages, Columns, Lines, Where Applicant of Cited Document Relevant Passages or Relevant Number-Kind Code^{2 (# known)} Figures Appear ^{US-} 2001/0003828 6/14/01 Peterson et al. mu ^{US-} 2002/0107968 U nn 2/6/03 Messarina US- 2003/0121050 ٧ m 6/26/03 Kalva et al. us- 2003/0135605 W 7/17/03 nw) Pendakun US- 6,601,041 X 7/29/03 m Brown et al. ^{US-} 2003/0195974 nu 10/16/03 Ronning et al. US-US-US-US-US-US-US-US-US-US-US-UŞ-US-

		FORE	IGN PATENT DOCU	MENTS		
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STA	STATEMENT BY APPLICANT		First Named Inventor	Madhukar et al.	
	(Use as many she	ate ae n	oressani)	Art:Unit	2141 -2155
	(Use as many sheets as necessary)			Examiner Name	Unknown Won M
Sheet	3	of	5	Attorney Docket Number	AOL0116

		OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
w	Z	NARASIMHA, R. et al. "I/O Issues in a Multimedia System"; Computer, Vol. 27, No.3, pg 69-74, March 1994, USA	
ww	A1	RAMAKRISHNAN, K.K. et al; "Operating system Support for a video-on-demand file service"; Multimedia Systems; Vol. 3, No. 2, Pg.53-65, 1995 West Germany	
m	B1	NWOSU, K.C. et al "Data Allocation and Spatio-Temporal Implications for Video-on-Demand Systems"; Proceedings of 1995 14th Annual Phoenix Conference on Computers and Communications: (Cat. No.95CH35751), pg. 629-35; IEEE: 1995 USA	
mu	C1	EUN, S,: et al. "Nonpreemptive scheduling algorithms for multimedia communication in local area networks"; Proceedings 1995 Int'l Conf on Network Protocols (Cat. no.: 95TB8122) pg. 356-IEEE Comput. Soc. Press; 1995 Los Alamitos, CA USA 1996	
m	D1	NAKAJIMA, T.; "A Dynamic QoS control based on Optimistic processor reservation"; Proceedings of the Intn'l onf. on Multimedia Computing and Systems (Cat. No.: 96TR100057), pp. 95-103 JEFF Comp. Soc. 1996 Los Alamitos, CA	
,,,,,)	E1	Orji, C.U. et al; "Spatio-temporal effects of mutimedia objects storage delivery on video-on-demand systems"; Mutlimedia Sytems; vol. 5, no. 1, pg 39-52, Springer-Verlag; January 1997, Germany	
nu	F1	KENCHAMMANA-HOSEKOTE, D.R., et al.; "I/O scheduling for digital continuous media"; Mutlimedia Systems, vol. 5, no.4, pg 213-37, Springer-Verlag, July 1997 Germany	
nu	G1	MATSUI, Y et al.; "VoR: a network system framework for VBRT over reserved bandwidth"; Interactive Distributed Mutlimedia Systems and Telecommunications Services 4th Int'l Workshop, IDMS '97 Proceedings: pg 189-98, Springer-Verlag: 1997	
~m	H1	LULING, R. et al.; "Communication Scheduling in a Distributed memory parallel interactive continuous media server system"; Proceedings of 1998 ICPP Workshop on Architectural systems and OS Support for Multimedia Applications Flexible	
m	11	SEONGBAE, E., et al; "A real-time scheduling algorithm for multimedia communication in samll dedicated multimedia systems'; KISS(A) (Computer Systems and Theory) vol	-

		1)		
Examiner Signature	Lule	wh	Date Considered	6/28/07

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Substitute for form 1449/PTO		Complete if Known
	Application Number	10/734,783
INFORMATION DISCLOSURE	Filing Date	12/12/2003 ·
STATEMENT BY APPLICANT	First Named Inventor	Madhukar, et al.
(Use as many sheets as necessary)	Art Unit	2141-2155
(400 00 110 110 110 110 110 110 110 110 1	Examiner Name	Unknown Won M
Sheet 4 of 5	Attorney Docket Number	AOL0116

Examiner	Cite	OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of	T
Initials*	No.1	the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T.º
ym '	J1	GAROFALAKIS, M.N., et al. "Resource scheduling in enhanced pay-per-view continuous media databases"; Proceedings of 23rd Int'l Conf. on Very Large Databases"; pg 516-25; Morgan, Kaufman Publishers, 1997, San Francisco, CA USA	
cmin	К1	MOSTEFAOUI, A.; "Exploiting data structures in a high performance video server for TV archives"; Proceedings of the Int'l Symposium on Digital Media information Base, pg 516-25. World Scientific, 1998 Singapore	
nu	L1	GAROFALAKIS, M.N., "On periodic resource scheduling for continuous media databases: VLDB Journal, Vol 7, no.4, pg 206-25; 1998 Springer Verlag, germany 1999	
nu	M1	HWEE-HWA, P., et al; "Resource scheduling in high peformance multimedia server", IEEE, March-April 1999, USA	
nn	N1	YOUNG-UHG, L. et al, "Performance analysis and evaluation of allocating subbanded video dta block on MZR disk arrays"; Proceedings of teh High Performance Computing (HPC'98) og 335-40. Soc for Comp Simulation Into'l 1998. San Diego, CA, USA	
hw	01	FENG, C. et al.; "An architecture of distributed media servers for supporting guaranteed QoS and media indexing", IEEE Intn'l Conf on Multimedia Computing and Systems, Part vol. 2 IEEE Comp. Soc. 2 vol. 1999 Los Alamitos, CA 1999	·
m	P1	TO, TP.J. et al "Dynamic optimization of readsize in hypermedia servers"; IEEE Intn'l Conf on Mutlimedia Computing and Systems; Part vol. 2, pg 486-91, Pub. IEEE Comput. Soc, 2 vol. 1999 Los Alamitos, CA USA	
m,	Q1	PANG, H. et al. "Resource scheduling in a high performance media server": IEEE Transactions on Knowledge and Data Engineering", v11n2, pg 303-320, 1999	
nw	R1	LEE, W. et al., "QoS-adaptive bandwidth scheduling in continuous media streaming"; Information and Software Technology; v.44n, June 2002, pg 551-563	·
nn	S1	WADDINGTON, D.G., "Resource partitioning in general purpose operating systems; experimental results in Windows NT"; Operating Systems Review, vol. 33, no4, pg52-74;	

Examiner Signature	Ledu	wh	Date Considered	6/28/07

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Substitu	ite for form 1449/PTO				Complete if Known
	•			Application Number	10/734,783
			CLOSURE	Filing Date	12/12/2003
STA	ATEMENT E	BY A	PPLICANT	First Named Inventor	Madhukar et al.
	(Use as many she	ets as n	ecessary)	Art Unit	2141_2(55
				Examiner Name	Unknown Wan M
Sheet	5	of	5	Attorney Docket Number	AOL0116

F	1 0::	OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
nu	T1	DITZE, M. et al. "A method for real-time scheduling and admission control of MPE 2 streams; PART 2000; 7th Australian Conference on Parallel and Real-Time Systems", Nov. 2000, Sydney, NSW, Australia, Puh: Springer-Verlag, Hong Kong, China 2001	
nm	U1	GAROFALAKIS, M., et al, "Competitive Online scheduling of continuous media streams", Journal of Computer and Systems Sciences; vol64, no2 pg 219-48, Academic Press, March 2002 USA	
mu	V1	WONJON, L. et al.; "QoS-adaptive bandwidth scheduling in continuos media streaming" Dept of Computer Sci and Engr, Korea University, Seoul, South Korea; Information and Software Technology, vol 44, no9, pg551-53, Seoul, Korea	
nul	W1	MOURLAS, C.; "Deterministic scheduling of CBR and VBR media flows on parallel media servers", Euro-Par 2002 Parallel Processing 8th Intn'l Euro-Par Conference Proceedings; Vol 2400, pg 807-15, August 2002, Paderborn, Germany 2003	
Juny	x1	BUFORD, J.F.; "Storage server requirements for delivery of hypermedia documents", Proceedings of the SPIE - The International Society for Optical Engineering Conference, Int. Soc. Opt. Eng. vol2417, pg 346-55, 1995	
Examiner		Date	
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